

Lieutenant Commander Heath M. Clifford 21st Century Sailor – Physical Readiness Program

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- #1: Reduces Stress
 - Exercise increases concentrations of norepinephrine
 - Moderates the brain's response to stress
 - Boost the body's ability to deal with existing physical symptoms that stress and worrying creates.



- #2: Alleviates Depression
 - Exercise releases endorphins
 - Creates feelings of happiness and euphoria
 - Studies show that exercise can treat mild to moderate depression as effectively as antidepressant medication
 - ➤ Promotes: neural growth, reduced inflammation, feelings of calmness and well-being.



- #3: Alleviates Anxiety
 - Exercise is a natural and effective antianxiety treatment
 - > Exercise releases endorphins
 - Relieves tension and stress
 - Boosts physical and mental energy
 - Enhances well-being
 - Q&A: Bubble bath or 20 minute jog?



- #4: Reduces Symptoms of ADHD
 - Boosts brain's norepinephrine, dopamine, and serotonin levels- all of which affect focus and attention
 - ➤Improves: Concentration, Motivation, Memory & Mood
 - Exercise works in much the same way as Ritalin and Adderall



- #5: Reduces Symptoms of Post-Traumatic Stress Disorder (PTSD)
 - Body focus during exercise can help the nervous system become "unstuck" and begin to move out of the immobilization stress response
 - Exercises that involve cross movement and engage both arms and legs are best choices



- #6: Shaper Memory and Brainpower
 - Exercise stimulates the growth of new brain cells (neurogenesis) and helps prevent age-related decline
 - Increases levels of a brain-derived protein (aka BDNF): helps with decision making and higher thinking, and learning.
 - >Increases production of cells in hippocampus



- #7: Higher Self-esteem
 - Investment in your mind, body, and soul
 - > Fosters sense of self-worth
 - >Sense of empowerment
 - **≻**Positive self-image
 - Sense of achievement



- #8: Improves Sleep
 - Short burst of exercise can help regulate your sleep patterns
 - > Exercise raises body's core temperature
 - Return to normal temperature post-exercise signals the body that it's time to sleep.



- #9: Increased Energy & Productivity
 - Research shows that regular exercise boosts energy level and increases work productivity.



- #10: Stronger Resilience
 - Boosts immune system and reduces the impact of stress
 - Provides a health coping mechanism for mental or emotional life challenges
 - ➤ Dopamine "reward chemical" released in response to any foam of pleasure
 - Effectively distracts drug and alcohol addicts making them de-prioritize cravings (at least short term)



How Much Exercise?

- 30 Minutes/5 X week: Moderate Exercise
 - >Shorter sessions if necessary
- OPNAV 6110.1J
 - > "members should participate in moderate activity at least:
 - (a) two hours and 30 minutes (150 minutes) per week, i.e., 50 minutes three times per week or 75 minutes two times per week; plus
 - (b) perform strength training exercises at least twice per week to work all major muscle groups.



Questions



Resources

Physical Activity and Mental Health

http://www.rcpsych.ac..uk/healthadvice/treatmentswellbeing/physicalactivity.aspx

Royal College of Psychiatrists

The Exercise Effect

http://www.apa.org/monitor/2011/12/exercise.aspx

American Psychological Association

Exercising to Relax

http://www.health.harvard.edu/newletters/Havard_Mens_Health_Watch/exercising-to-relax

Harvard Medical School

Depression and Anxiety: Exercises Eases Symptoms

http://www.mayoclinic.org/diseases-conditions/sepression/in-depth-and-exercise/art-20046495

Mayo Clinic

For Depression, Prescribing Exercise Before Medication

http://www.theatlantic.com/health/archive/2014/03/for-depression-prescribing-exercise-before-medication/284587/

The Atlantic

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